

What is claimed is:

1. A device for supplying uninterruptible power, said
5 device having
input connections (90, 91) for connection to a primary
power supply device (230),
connections (190, 191) for connecting a standby power
source (60),
10 first output connections (100, 101) for connecting a
load (220),
a device (20) for decoupling the input connections (90,
91) from the first output connections (100, 101) in the
event of a fault in the primary power supply device
15 (230),
a first controllable switching device (40) for
connecting the standby power source (60) to the first
output connections (100, 101) in a controlled manner in
the event of a fault in the primary power supply device,
20 a control device (31) which is assigned to the first
controllable switching device (40),
characterized in that
the first controllable switching device (40) has a power
transistor (41, 42) which can be rapidly switched,
25 a monitoring device (30) being provided for the purpose
of monitoring the output current flowing through the
power transistor (41, 42) which can be rapidly switched,
and in that
the control device (31) is designed to pulse-width-
30 modulate the rapid power transistor (41, 42) on the
basis of the current being monitored in order to limit
the current which can be provided by the standby power
source (60).

2. The device for supplying uninterruptible power as claimed in claim 1,
characterized in that
5 the standby power source (60) is rechargeable.
3. The device for supplying uninterruptible power as claimed in claim 2,
characterized in that
10 a device (70) for blocking a current, which is provided by the primary power supply device (230), to the standby power source (60) is provided in series with the rapid power transistor (41, 42).
- 15 4. The device for supplying uninterruptible power as claimed in claim 2 or 3,
characterized by
a smoothing capacitor (80) which is connected between the first output connections (100, 101).
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5. The device for supplying uninterruptible power as claimed in one of claims 2 to 4,
characterized in that
a charging device (50) which can be controlled by the
25 control device (31) is connected between the chargeable standby power source (60) and the input connections (90, 91).
6. The device for supplying uninterruptible power as
30 claimed in one of claims 1 to 5,
characterized in that
a parallel circuit comprising a diode (21) and a second controllable switching device (22) forms the decoupling

device (20), in that the monitoring device (30) is designed to monitor an input voltage, and in that the control device (31) disconnects the second controllable switching device (22) if the input voltage being
5 monitored signals a fault in the primary power supply device (230).

7. The device for supplying uninterruptible power as claimed in claim 6,
10 characterized in that the second controllable switching device (22) is a power transistor, in particular a field effect transistor.

8. The device for supplying uninterruptible power as
15 claimed in one of claims 1 to 7, characterized by a current-limited supply output (130) which is connected in parallel with the first output connections (100, 101).

20 9. The device for supplying uninterruptible power as claimed in claim 8, characterized by at least one third controllable switching device (120)
25 for connecting and disconnecting at least one state signaling device (200, 210) which can be connected to a respective second output connection (160, 170) that is assigned to the third controllable switching device (120), a third output connection (140) which is assigned
30 to the third controllable switching device (120) being arranged at a predetermined distance from the current-limited supply output (130).

10. The device for supplying uninterruptible power as
claimed in claim 9,
characterized by
a predefined contact bridge (150) for short-circuiting
5 the current-limited supply output (130) and the third
output connection (140).
11. The device for supplying uninterruptible power as
claimed in claim 9 or 10,
10 characterized in that the third controllable switching
device (120) is a relay, in particular a changeover
relay.
12. A device for supplying uninterruptible power, said
15 device having
input connections (90, 91) for connection to a primary
power supply device (230),
connections (190, 191) for connecting a standby power
source (60),
20 output connections (100, 101) for connecting a load
(220),
a device (20) for decoupling the input connections (90,
91) from the output connections (100, 101) in the event
of a fault in the primary power supply device (230),
25 a first controllable switching device (40) for
connecting the standby power source (60) to the output
connections (100, 101) in a controlled manner in the
event of a fault in the primary power supply device
(230),
30 a control device (31) which is assigned to the first
switching device (40),
characterized in that
a parallel circuit comprising a diode (21) and a second

controllable switching device (22) forms the decoupling device (20), in that a monitoring device (30) is provided for the purpose of monitoring an input voltage, and in that the control device (31) disconnects the second controllable switching device (22) if the input voltage being monitored signals a fault in the primary power supply device (230).

13. The device for supplying uninterruptible power as claimed in claim 12, characterized in that the second controllable switching device (22) is a power transistor, in particular a field effect transistor.
14. A device for supplying uninterruptible power, said device having input connections (90, 91) for connection to a primary power supply device (230), connections (190, 191) for connecting a standby power source (60), first output connections (100, 101) for connecting a load (220), a device (20) for decoupling the input connections (90, 91) from the output connections (100, 101) in the event of a fault in the primary power supply device (230), a first controllable switching device (40) for connecting the standby power source (60) to the output connections (100, 101) in a controlled manner in the event of a fault in the primary power supply device (230), a control device (31) which is assigned to the first switching device (40), characterized by

a current-limited supply output (130) which is connected in parallel with the first output connections (100, 101).

- 5 15. The device for supplying uninterruptible power as claimed in claim 14, characterized by at least one second controllable switching device (120) for connecting and disconnecting at least one state signaling device (200, 210) which can be connected to a
10 respective second output connection (160, 170) that is assigned to the second switching device (120, 122), at least one third output connection (140) which is assigned to the second switching device (120, 122) being
15 arranged at a predetermined distance from the current-limited supply output (130).
16. The device for supplying uninterruptible power as claimed in claim 15,
20 characterized by a predefined contact bridge (150) for short-circuiting the current-limited supply output (130) and the at least one third output connection (140).
- 25 17. The device for supplying uninterruptible power as claimed in claim 15 or 16, characterized in that the second controllable switching device (120) is a relay, in particular a changeover relay.